INVESTIGATOR'S ANNUAL REPORT

National Park Service

All or some of the information provided may be available to the public

Reporting Year: 1996	**Park:** Shenandoah NP
Principal Investigator: Edward Simpson	**Office Phone:** 683-4445 **Email:** simpson@kutztown.edu
Address: Dept of Physical Science Kutztown University Kutztown, PA 19530 PA	**Office Fax:** 683-1352

Additional investigators or key field assistants (first name, last name, office phone, office email):

Name: Robert Noto	**Phone:** n/a	**Email:** n/a
Name: Kelly Dilliard	**Phone:** n/a	**Email:** n/a

Permit#:
SHEN1996ARWM

Park-assigned Study Id. #:
unknown

Project Title:
Petrology And Sedimentology Of The Catoctin Formation (N-189)

Permit Start Date: Jan 01, 1996	**Permit Expiration Date** Jan 01, 1998
Study Start Date: Jan 01, 1996	**Study End Date** Jan 01, 1997

Study Status:
Completed

Activity Type:
Research

Subject/Discipline:
Geology / General

Objectives:

A study of interflow sediments of the Catoctin Formation is proposed. The following are objectives of this study: 1) determine the composition of the interflow sediments, through thinsections, 2) reconstruct the types of streams that cross cut the preserved lava field, 3) determine the controls on deposition, 4) compare and contrast the interflow sediments with that of the Chilhowee Group of southern Virginia and 5) reconstruct a rift model for the extrusion of the Catoctin Formation basalts. This investigation will yield important insights into the Neoproterozoic to Cambrian rift event which affected the Central Appalachians northward.

Findings and Status:

The first two months of the summer were spent collecting hand samples from Shenandoah, I-64 and the Parkway. These samples were then cut and sent away to be processed into thinsections. This past week we received our final shipment of thinsections. The length of time it took to process the thinsections has hindered our data acquisition. We have however put together and abstract on hand samples collected from our I-64 traverse (copy is enclosed). We hope to begin collecting data in the next week. The conclusion of the project will be probably next January. Preliminary analysis of slabs indicates that local source areas are the controlling factor on sandstone petrology. Fluvial systems in the lower part of the Catoctin were restricted in distribution by the paleotopography on the granites. In the upper Catoctin the paleotopography was covered by extruded basalts, as a result stream systems became more widespread.

For this study, were one or more specimens collected and removed from the park but not destroyed during analyses?
No

Funding provided this reporting year by NPS: 0	**Funding provided this reporting year by other sources:** 5700

Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college

Full name of college or university:	Annual funding provided by NPS to university or college this reporting year:
n/a	0